Release Notes for Zenoss Service Dynamics Version 4.2.3

Part Number: 23-122012-4.2-v04

1. What's New?

This version of Service Dynamics offers these new features and improvements:

- Improved UI and object search performance through the re-factored global catalog index. The new catalog is backed by the Apache Lucene index.

- ZenTune "tuning advisor," which analyzes your system configuration and makes recommendations for improved performance. This feature is implemented through the ZenPacks.zenoss.AutoTune ZenPack. For information about this feature, refer to the chapter titled "ZenTune" in *Resource Manager Extended Monitoring*.

- Redesigned Job Manager, which allows you to better monitor the status of jobs through the user interface. The new jobs framework allows synchronous execution of long-running jobs and significantly improved UI performance.

- Ability to move a device's associated performance data when you move the device from one distributed collector to another.

- Windows (ZenWinPerf) collector enhanced scalability through multi-worker support. For more information about this feature, refer to the chapter titled "Windows Performance" in *Resource Manager Extended Monitoring*.

- Ext JS® 4.1 UI framework upgrade, which enhances user experience through uniform grid controls, browser performance, and browser support.

- A heartbeat monitor, enabled by the `zengomd` daemon. For more information about this feature, see the section titled "Configuring the Heartbeat Monitor" in the chapter titled "Performance Tuning" in *Resource Manager Installation*.

- Extended platform support, including CentOS 6 and RHEL 6.

2. Versions, Supported Software and Environments

Service Dynamics Version 4.2.3 includes these product component versions:

Component	Version
Analytics and Optimization	4.2.2
Global Operations Management	1.2.0
Impact and Event Management	4.2.3
Resource Management	4.2.3

You can install this version of Service Dynamics on these Linux® platforms:

- RedHat® Enterprise Linux 5 and 6

- CentOS 5 and 6 (verified with CentOS 5.8, CentOS 6.3)

For each system that will access Service Dynamics through a Web browser, you need:

- Adobe® Flash® Player 11 or later version

- One of these browser versions:
    - Internet Explorer (Version 7 or later)
    - Firefox
    - Chrome

The following partial list of resources can be managed by Resource Manager:

- Cisco Unified Computing System[TM]
- VMware ESX® Infrastructure, VMware vSphere[TM], VMware vCloud[TM]
- NetApp®
- Windows Server (2000, 2003, 2008), Windows XP, and Windows Vista®, Windows 7
- Linux or other UNIX® server
- OpenStack
- Tomcat[TM] and other Java®/JMX servers
- Any SNMP- or SSH-enabled device

3. Downloading Service Dynamics

Service Dynamics is available from the Zenoss Support Portal:

https://support.zenoss.com

Contact your Zenoss representative for more information.

4. Resource Management

Read the following sections for the latest installation and implementation information. Zenoss strongly recommends that you refer to the latest version of the installation guide before beginning installation.

4.1. Installation and Upgrade Notes

- When upgrading from Version 4.2.2 to Version 4.2.3, you must use RPM instead of YUM.
- Service Dynamics is not supported on 32-bit platforms. If you are upgrading from a 32-bit platform version, please contact Zenoss Support for assistance with your upgrade.
- If you are using one or more ZenPacks that are not installed through the standard Resource Manager installation process, you should contact the ZenPack author about its compatibility with this release. Do not upgrade until you ensure compatibility of all custom ZenPacks. Zenoss further recommends you test the ZenPack for upgrade compatibility in a test environment.
- Nagios plugins are no longer included in Resource Manager, which now relies on the distribution-provided packages for these plugins. As a result, you must install Nagios plugins with other required software. See *Resource Manager Installation* for specific procedures.
- During installation of the RPM or its dependencies, you may see a message similar to:

```
Warning: RPMDB altered outside of yum.
```

The warning is caused by interference between the YUM and RPM binaries as they access the local package database. This warning is benign and can be ignored. (Internal ZEN-3425)

4.2. Implementation Notes

4.2.1. Zenoss DataStore

- Command-line access to the Zenoss DataStore is available only to the zenoss user; Zenoss DataStore tools are located only in the zenoss user's $PATH.

Run all Zenoss DataStore commands as the zenoss user, as in:

```
su - zenoss
zends -u root
```

4.2.2. IPv6

- Resource Manager can model and monitor IPv6-addressed devices by using SNMP, Telnet or SSH. Ping monitoring is also supported for IPv6. Resource Manager installation (and communications links among Resource Manager components) must continue to be over IPv4. This includes all links between local or distributed ZenHubs and collectors, and Resource Manager dependencies (such as RabbitMQ).

  When adding a new device to Resource Manager, the DNS resolution of the device name dictates whether Resource Manager attempts to connect by using IPv4 or IPv6. If you enter an IP address directly (either as a device name or by manually changing a device's management IP), then Resource Manager can be forced to use IPv4 or IPv6 manually.

  If you want to monitor devices in your infrastructure that have IPv6 addresses, make sure you have installed and configured an IPv6 interface on your Resource Manager server.

- A new setting in the `/opt/zenoss/etc/global.conf` file allows you set a preference of DNS resolution order (IPv4 or IPv6) for managed IPs. Set the value of the `preferredipversion` option to ipv4 or ipv6. (Internal ZEN-602)

4.2.3. Reports

The process for determining device state has changed for the Availability report. Previously, if an event was reported that indicated a device down condition before the start of the report window, this event would not be seen, and the device would be considered 100% available. The Availability report now looks for all open events reported before or during the reporting window, and computes availability by using the device state based on prior open events.

4.2.4. Host Name Changes

If you change the host name of your Resource Manager server, then you must clear and rebuild queues before the `zenhub` and `zenjobs` daemons will restart.

To work around this issue, you can issue the following commands (although any data queued at restart time will be lost):

```
export VHOST="/zenoss"
export USER="zenoss"
export PASS="zenoss"
rabbitmqctl stop_app
rabbitmqctl reset
rabbitmqctl start_app
rabbitmqctl add_vhost "$VHOST"
rabbitmqctl add_user "$USER" "$PASS"
rabbitmqctl set_permissions -p "$VHOST" "$USER" '.*' '.*' '.*'
```

4.2.5. ZenPacks

- The 1.4.0 version of the CiscoUCS ZenPack in Resource Manager changes the event class structure for events that originate from a UCS Manager. The previous event classes /CiscoUCS/Events and /CiscoUCS/Faults are no longer present. Events that come in will be in the /Unknown class unless they are mapped to the /Status/Blade or /Status/Chassis class. If you have created custom mappings or transforms for the /CiscoUCS/Events or /CiscoUCS/Faults event classes, they will be lost.

- The Nexus7k ZenPack is no longer supported. Its functionality is replaced by the CiscoMonitor ZenPack.

- The esxtop monitoring functionality in ZenPacks.zenoss.ZenVMware has been moved to a separate Zen-Pack (ZenPacks.zenoss.ZenVMwareEsxTop), which must be downloaded and installed separately from Resource Manager. (Internal ZEN-2481)

The ZenVMware ZenPack that shipped with Resource Manager 4.1 had two monitoring templates in the /
Devices/VMware device class: VMwareHost_esxtop and VMwareGuest_esxtop. After upgrading to 4.2.3,
these templates will remain unchanged, but esxtop monitoring will not be enabled until the new ZenPack is
installed. There are two functionality changes with the new ZenPack:

- When a new VMware infrastructure endpoint is added to be monitored, the VMwareHost_esxtop tem-
  plate must be bound to the endpoint's Hosts sub-device class for esxtop monitoring of the ESX hosts
  to occur.

- By default, the data sources of the esxtop templates were disabled. The data sources on the new tem-
  plates are enabled by default.

- The TrapForwarder ZenPack is deprecated in this release. SNMP traps are now handled as part of notifi-
  cations. For more information, see the chapter titled "Using Resource Manager" in *Resource Manager Ad-
  ministration*.

4.2.6. Dumping and Loading Devices

The `zendevicedump` and `zendeviceload` commands are not supported in this version of Resource Manager. Use
`zenbatchdump` and `zenbatchload` instead. For more information, see the section titled "Dumping and Loading
Devices" in *Resource Manager Administration*.

4.2.7. zenjobs Permissions

On CentOS systems, default permissions for `/dev/shm` are set to 1777. For `zenjobs` to perform correctly, you
must set permissions on `/dev/shm` to 0755. (ZEN-3504)

4.3. Known Issues

The following issues are known for this version of Resource Manager.

4.3.1. Collector Host Name

When deploying a remote collector, if you encounter this error:

```
2012-03-17 19:40:57 ERROR zen.DistributedCollector Removing the new collector
2012-03-17 19:40:57 ERROR zen.DistributedCollector must be string or read-only buffer, \
 not none
```

then you must edit the host name of the hub to something other than localhost (such as the IP address or host
name of the hub).

4.3.2. zodb_session Table

An exception may occur with the zodb_session table that prevents access to Zope. (Internal ZEN-1988)

If this exception occurs, follow these steps:

1. Drop and then re-create the zodb_session table, substituting your host name as needed for
   `'zenoss'@localhost'` in the following commands:

   ```
   DROP DATABASE IF EXISTS zodb_session;
   CREATE DATABASE zodb_session;
   GRANT ALL ON zodb_session.* TO 'zenoss'@'localhost' IDENTIFIED BY 'zenoss';
   FLUSH PRIVILEGES;
   ```

2. Restart the `zenwebserver` daemon.

4.3.3. Active Directory

When monitoring Windows 2008 SP1 servers using the ActiveDirectory ZenPack, some performance counters
expected by the ZenPack will not be available, and will generate error messages and cause missing perfor-

mance counters. See the section "Changes to performance counters" at http://technet.microsoft.com/en-us/li-brary/cc754463(WS.10).aspx for more details about changes in Windows 2008. (Defect 28640)

4.3.4. Site Window Portlet

Some Web sites may not be compatible with the Site Window (Welcome) portlet that appears on the Dashboard. Before customizing this portlet to point to another Web site, make sure that site is not running a JavaScript "frame breaker" script. (Defect 27151)

4.3.5. Internet Explorer 9

When using Internet Explorer 9, Resource Manager user interface page elements may not load and display correctly. To work around this issue, go to the Internet Options **Advanced** tab (from Settings > Internet Options), and then reset Internet Explorer settings.

4.3.6. Google Maps

When working with the Google Maps portlet, you may encounter an OVER_QUERY_LIMIT error. If you receive this error, you may have reached your daily limit and will not be able to use the map until the next day when Google resets your IP address. (See ZEN-2399 for more information and resolution.)

4.3.7. Windows Services

Resource Manager displays a status of "unknown" for Windows services that are disabled or not monitored. (Defect 27028)

4.3.8. Zenoss Global Dashboard

Zenoss Global Dashboard is not supported in this release. If you are running Zenoss Global Dashboard, you must contact Support before upgrading.

4.3.9. Collector Performance Graphs

Collector default performance graphs for cycle times show NaN values for zenping, zenperfsnmp, and zenstatus daemons. (Internal Defect 29378)

5. Impact and Event Management

Availability and performance states are impacted only by an event's parent class. If an event has a subclass of the class defined in a logical node, then no impact is shown. (Internal ZEN-3680)

6. Global Operations Management

This section lists updates and fixes for Version 1.2.0 of Service Dynamics Global Operations Management.

6.1. New Features

In this version, the HTTP client used to propagate actions to local and remote Resource Manager instances has been rewritten for performance and reliability (using asynchronous I/O instead of threading).

6.2. Defect Fixes

Fixes in this version of Global Operations Management are:

- Properly timeout HTTP connections to local / remote Zenoss instances. Previously, zengomd could fail to shutdown if a thread was blocked waiting for a response from a HTTP request.
- Removed an unnecessary logged exception in event.log when a target queue did not exist on a GOM source system.

- Fix GOM criteria filter to properly support filtering events based on the event count.
- Fix GOM criteria filter to properly handle 'contains' criteria on device organizers (Groups/Systems).
- Do not fail if a note cannot be propagated to an event on a source or target system if the event no longer exists.
- Fix error when 'Update Model' preference is enabled for a source and an event class doesn't exist on the target system.
- Avoid unnecessary object creation if 'Update Model' preference is enabled.
- Work around ConflictError when creating model elements when the 'Update Model' preference is enabled.
- Optimize the query used to search for existing devices when creating model elements.
- Set the title of created devices to the title from the forwarded event if 'Update Model' is enabled.
- Properly tag forwarded events with the UUID of the device when the 'Update Model' preference is enabled. This enables viewing events for the device / device class in the event console for the device / device class.
- Fix errors performing 'Update Model' operations after the hub has been restarted.

7. Issues Fixed in This Release

For a list of issues resolved in this release, see "Zenoss Service Dynamics Version 4.2.3 Fixed Issues" appended to these notes.

8. Reporting Problems and Providing Feedback

To contact Zenoss Customer Support, go to the support portal at:

https://support.zenoss.com

Zenoss welcomes your comments and suggestions to help us improve our product documentation. Please send your comments to:

docs@zenoss.com

Zenoss Service Dynamics Version 4.2.3 Fixed Issues

Key	Summary
ZEN-2386	Process Groupings
ZEN-3050	[maintenance] ZenTrap Memory Leak
ZEN-4195	[maintenance] Un-acknowledged event reflects previous owner
ZEN-4346	Remote collectors show extraneous messages
ZEN-4360	[maintenance] remove password from ldap authenticator log message
ZEN-4450	Race condition in clearing events
ZEN-4452	Nagios parser is broken
ZEN-4459	DC zenpack fails to update with two collectors on same physical hardware
ZEN-4464	zenjmx creates 50 events for JBOSS if not able to communicate with endpoint
ZEN-4476	zenhub.log not viewable via GUI
ZEN-4485	Job hitting an exception isn't showing a traceback
ZEN-4486	Live Grid refreshes scroll to the top
ZEN-4497	User is unable to change the device type to any on Impact policies
ZEN-4523	BigIpMonitor: 10G interfaces reporting speed of 10K
ZEN-4535	All Device Reports blows up after Decommissioned patch
ZEN-4537	Traceback when creating remote collector
ZEN-4555	Event console doesn't clear after select all
ZEN-4575	Nagios parser doesn't handle blank output gracefully
ZEN-4580	Device updates sent through zenhub are not batched
ZEN-4594	ZenSQLTx zenpack tracebacks
ZEN-4613	Traceback updating remote-collector (step 2) of the installation steps console
ZEN-4615	Traceback when installing DistributedCollector without collectordaemons.txt file
ZEN-4641	Blank zenImpactUUID, zenImpactRootCauseUUID and zenImpactRootCauseResourceClass on zenImpactTrap
ZEN-4662	[maintenance] Outgoing SNMP traps do not include device/component names
ZEN-4665	zenhub on a remote hub will not start because it is looking for local

	zencatalogservice
ZEN-4668	RPS-Traceback in zenhub.log after 4.2.2 b179 RPS instalation
ZEN-4671	zeneventserver saved searches can time out prematurely if a database operation takes longer than the timeout period
ZEN-4685	Installation of Enterprise Collector zenpack fails
ZEN-4686	Installation of Enterprise Collector zenpack fails
ZEN-4692	4.2.2 Event Console and Infrastructure UI is significantly slower to render than in 4.1.1
ZEN-4694	CiscoUCS: Clicking "Switch Cards" freezes browser
ZEN-4695	Details image broken
ZEN-4698	Can't edit config for distributed collector daemon
ZEN-4713	CiscoMonitor: AttributeError: 'NoneType' object has no attribute '_getProduct'
ZEN-4724	Errors installing ZenETL
ZEN-4725	Tracebacks after Impact installation
ZEN-4726	CPU performance report does not work
ZEN-4729	post-release task - Callhome's S3 logs do not store IP address of sender
ZEN-4730	Callhome's S3 logs do not store IP address of sender
ZEN-4731	SNMPv1 Traps Do Not Work
ZEN-4733	Client report export missing server name
ZEN-4737	Daemons not listed in daemons.txt should still have their binaries created on remote collectors
ZEN-4741	Cisco Modeling plugin cisco.snmp.Interfaces does not discover Serial interfaces
ZEN-4743	Keep similar nomenclature for both traps
ZEN-4745	Cannot do upgrade Resmgr 4.2.2-UP (build 1675) -> 4.2.3 LOCAL - Centos 5 and 6
ZEN-4747	4.2.2 utilization report doesn't include VM count (call home server defect)
ZEN-4748	AutoTune fills logs with tracebacks
ZEN-4749	Big IP enhancements
ZEN-4751	post-release task - [maintenance] Available Version in Settings->Versions gives an earlier version than is installed

ZEN-4752	Documentation doesn't list all zenpacks on Zenoss CSA
ZEN-4754	Documentation issues when installing and configuring zenoss CentOS 5 and 6
ZEN-4770	[maintenance] VMware cpuUsageAvg datapoint has an inconsistent name, breaking PortalIntegration requests
ZEN-4781	yum upgrade from 4.2.2 to 4.2.3 won't start
ZEN-4784	GOM: Events from Source system are not being displayed on Target system event console
ZEN-4803	Critical error after adding VMware Infrastructure
ZEN-4805	Unable to Update a remote collector after run an upgrade from 3.2.1 to 4.2.3
ZEN-4806	Warning in fresh installation of Resmgr build 1690
ZEN-4815	unable to get zenoss to start after installing analytics 4.2.2 build 1675 with RM 4.2.3 build 1690
ZEN-4824	Getting error during fresh install 4.2.3, related with DeleteOldCpuAvgDatapoint.py
ZEN-4853	INFO message contains an ERROR message in zenimpactgraph log:+HeapDumpOnOutOfMemoryError
ZEN-4863	User cannot uninstall Zenoss 4.2.3 CSA - RESMGR
.	